# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

**Peter J. Malnekoff**

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| Application No.: 09/871,867 | Confirmation No.: 2171 |
| Filed: June 1, 2001 | Art Unit: 3622 |
| For:  AN AUTOMATED GEMSTONE EVALUATION SYSTEM | Examiner: Retta, Yehdega |

## REPLY BRIEF

MS Appeal Brief–Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA  22313-1450

Dear Sir:

This Reply Brief is submitted in furtherance of the Examiner's Answer, filed in this case on December 9, 2008.  The Reply Brief is filed within the two-month deadline. Accordingly, this Reply Brief is timely filed.

This Reply addresses one issue (the new grounds for rejection) as all other issues have been addressed previously and no new amendments have been made to the claims:

1.       Whether claims 15-18 and 20 are properly rejected under section 101 as being directed to non-statutory subject matter in view of the ruling in the case *In re Bilski,* 545 **F.3d** 943, 88 U.S.P.Q.2d 1385 (2008) by attempting to claim a fundamental idea or a mental process.

## I.      Issues To Be Reviewed On Appeal

A.      Whether claims 14-18 and 20 are directed to transforming an article into a different state or thing to satisfy the section 101 rejection as announced in *In re Bilski.*

B.      Whether the transformation that exists in claims 14-18 and 20 is an insignificant extra solution activity as described in *In re Bilski.*

## II.      Argument

A.      **Whether claims 14-18 and 20 are directed to transforming an article into a different state or thing to satisfy the section 101 rejection as announced in *In re Bilski***

At a high level, the question is whether claims 14-18 and 20 transform an article into a different state or thing. The Federal Circuit has provided guidance as to how to analyze this question in the *Bilski* decision. However, at a high level, the Applicant would like to note that the claim transforms physical characteristic of a gemstone into a pricing estimate that is used in an evaluation report. The articles (the gemstone characteristics) are transformed into a different state (a price estimate) or thing (an evaluation report). Even at a high level, the claims are patentable under section 101. However, as the Federal Circuit has noted, the modern economy of bits and bytes makes a more detailed analysis mandatory.

The relevant section of *In re Bilski* as applied to claims 14-18 and 20 quotes extensively from two cases to better define what is and what is not a transformation of an article into a different state or thing. The first case is *Diamond v. Diehr*, 450 U.S. 175, 185 (1981) ("*Diehr*"). In *Diehr*, a mathematical formula is used to create an improved calculation

of the time needed to cure rubber. The claim was held patentable as the claim did not preclude use of the mathematical formula (the Arrhenius equation), but limited the claim to using the mathematical formula to make rubber (a particular application). In short, the court stated that if the effect of allowing the claim would be to allow the patentee to pre-empt substantially all uses of that fundamental principle, then the claim would be drawn to non-patent eligible subject matter. As the claim was limited to using the Arrhenius equation to making rubber, the claim was allowable subject matter.

Similar to *Diehr*, the pending claims 14-18 and 20 are limited to pricing gemstones. Similar to *Diehr* where the calculation was limited to rubber, the pending claims limit the calculations to gemstones. The fundamental principle is available to virtually all uses except gemstones. The claim is not directed to the equation, but transforming physical characteristics of gemstones into a pricing estimate of gemstones for a gemstone evaluation report.

The second case is *In re Abele, 684 F.2d 902 (CCPA 1982) ("Abele")*. A first claim in *Abele* was held unpatentable as it recited a broad process of graphically displaying variance of data from average values. *Abele* at 909. That claim did not specify any particular type or nature of data nor did it specify how or where the data was obtained or what the data represented. The claim was held unpatentable. In contrast, the pending claims described the type and nature of the data:

> "predetermined data describing a gemstone, descriptive of the
> physical characteristics of the gemstone to be evaluated, supplied
> by a system user, from a gemstone laboratory grading certificate
> including cut type, weight, color, clarity, and cut proportions";

where it is from (how):

> "from a gemstone laboratory grading certificate"

and what the data represents:

> "cut type, weight, color, clarity, and cut proportions."

In short, the claim calls for everything that was lacking in the rejected claim of *Abele*.

Further, there was an allowable dependent claim in *Abele* which is shockingly similar to the pending claims. The allowed claim called for "said data is X-ray attenuation data produced in a two dimensional field by a computed tomography scanner."

As the Federal Circuit stated in *Bilski* regarding this very claim:

"This data clearly represented physical and tangible objects,
namely the structure of bones, organs, and other body tissues.
Thus, the transformation of that raw data into a particular visual
depiction of a physical object on a display was sufficient to
render that more narrowly-claimed process patent-eligible."

Similar to *Abele*, the pending claims call for data that represents physical and tangible objects (gemstones) and the raw data is transformed into a gemstone pricing estimate used on a gemstone evaluation report. *Abele* called for data representing bones, organs and other body tissues while the pending claims call for data representing physical gemstones. The similarity is amazing and is virtually a textbook example of an allowable claim. Clearly, the claims are patentable.

B.      **Whether the transformation that exists in claims 14-18 and 20 is an insignificant extra solution activity as described in *In re Bilski*.**

The *Bilski* court also provided that the recited machine or transformation must not constitute mere "insignificant post-solution activity." The example given was attempting to claim the Pythagorean theorem applied to surveying techniques.

In the pending claims, the data itself is limited. It is gemstone data. It is not "any" data. The data is gemstone specific, the calculations are gemstone specific and the results are gemstone specific. This is not a case of tacking on a field of use qualifier at the end of a claim. The entire independent claim, from the input gemstone data to the output gemstone pricing report, is limited to gemstones.

Accordingly, the transformation is not an "insignificant extra solution" but is a fundamental part of all of the claim elements. Thus, the claims should be allowable under section 101.

**Conclusion**

In view of the foregoing remarks, it is respectfully submitted that each of claims 1-18 and 20-22 is patentable over the prior art, and that all of the pending claims should be allowed.

Respectfully submitted,

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February 9, 2009

## APPENDIX A

## Claims Involved in the Appeal of Application Serial No. 09/871,867

1.      (Previously Presented)  A fully automated gemstone evaluation system for which presence of the actual gemstone is not required, comprising:

an input device adapted to receive a gemstone laboratory grading certificate via a remote communication device the gemstone laboratory grading certificate including cut type, weight, color, clarity, and cut proportions wherein the data for cut proportions include an objective measurable value for at least one of depth percentage, table percentage, girdle thickness, crown height, crown angle, pavilion depth, pavilion angle, culet amount, and type of finish;

a processing device adapted to compute a pricing estimate for use in an evaluation report, based at least upon the data included on the gemstone laboratory grading certificate; and

an output device adapted to communicate the evaluation report to the system user.


2.      (Original)  The automated gemstone evaluation system according to claim 1, wherein said evaluation report further includes a summary description of the qualities of the gemstone.


3.      (Original)  The automated gemstone evaluation system according to claim 1, wherein said pricing estimate includes a separate price estimate for each of a plurality of different types of retail outlets.


4.      (Original)  The automated gemstone evaluation system according to claim 1, further comprising a remote communication section, allowing for the gemstone data to be received from an input device located remotely, and allowing for the evaluation report to be communicated to an output device located remotely.

5.       (Original)  The automated gemstone evaluation system according to claim 1, wherein said output device includes a printer for printing the evaluation report.

6.       (Original)  The automated gemstone evaluation system according to claim 1, wherein said output device includes a display screen for displaying the evaluation report.

7.       (Original)  The automated gemstone evaluation system according to claim 1, wherein the system user is a consumer.

8.       (Previously Presented)  A fully automated gemstone evaluation system for which the presence of the actual gemstone is not required, comprising:

an input device adapted to receive predetermined gemstone data descriptive of the physical characteristics of the gemstone to be evaluated, supplied by a system user, from a gemstone laboratory grading certificate without having the gemstone be physically present to any part of the gemstone evaluation system, the gemstone data including cut type, weight, color, clarity, and cut proportions;

a processing device adapted to compute a fair market pricing estimate for use in an evaluation report, based at least upon the cut proportions; and

an output device adapted to communicate the evaluation report to the system user.

9.       (Original)  The automated gemstone evaluation system according to claim 8, wherein said evaluation report further includes a summary description of the qualities of the gemstone.

10.       (Original)  The automated gemstone evaluation system according to claim 8, wherein said pricing estimate includes a separate price estimate for each of a plurality of different types of retail outlets.

11.       (Original)  The automated gemstone evaluation system according to claim 8, further comprising a remote communication section, allowing for the gemstone data to be received from an input device located remotely, and allowing for the evaluation report to be communicated to an output device located remotely.

12.     (Original)  The automated gemstone evaluation system according to claim 8, wherein said output device includes a printer for printing the evaluation report.

13.     (Original)  The automated gemstone evaluation system according to claim 8, wherein said output device includes a display screen for displaying the evaluation report.

14.     (Original)  The automated gemstone evaluation system according to claim 8, wherein the system user is a consumer.

15.     (Previously Presented)  A computerized method of producing a gemstone evaluation report, without the presence of the actual gemstone being required, said method comprising the steps of:

receiving predetermined data describing a gemstone, descriptive of the physical characteristics of the gemstone to be evaluated, supplied by a system user, from a gemstone laboratory grading certificate including cut type, weight, color, clarity, and cut proportions;

computing a fair market pricing estimate for the gemstone, based at least on the received cut proportions;

generating an evaluation report including the fair market pricing estimate; and

communicating the evaluation report to the system user.

16.     (Previously Presented)  The method of claim 15, wherein said step of computing a fair market pricing estimate for the gemstone includes:

computing an adjustment factor, based at least on the cut proportions of the gemstone; and

generating the fair market pricing estimate from a baseline price estimate and the computed adjustment factor.

17.     (Previously Presented)  The method of claim 16, further comprising determining the baseline price estimate including:

indexing a data structure, based on the cut style, weight, color and clarity of the gemstone;

reading an indexed list price value stored in the data structure; and

adjusting the indexed list price value based on a jeweler pricing adjustment for generating said baseline price estimate.

18.     (Previously Presented)  The method of claim 15, wherein said step of communicating the evaluation report to the user includes at least one of the steps of:

printing the evaluation report on a printer; and

displaying the evaluation report on a display screen.

19.     (Canceled)

20.     (Previously Presented)  The method of claim 15, further comprising:

allowing a user to modify a value of any of the physical characteristics of the gemstone; and

adjusting the fair market pricing estimate based on the modified value of the any of the physical characteristics of the gemstone.

21.     (Previously Presented)  The automated gemstone evaluation system according to claim 8, wherein the processing device is further adapted to adjust the pricing estimate based on a laboratory identifier from the gemstone laboratory grading certificate.

22.     (Previously Presented)  The automated gemstone evaluation system according to claim 8, wherein the processing device is further adapted to generate a set of retail price estimates by adjusting the pricing estimate by a set of retail outlet identifiers.

Evidence Appendix

No evidence is submitted pursuant to 37 CFR § 1.130, 1.131 or 1.132.

<u>Related Proceedings Appendix</u>

There are no related proceedings.